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The Polyporaceae of North America—VIII. Hapalopilus, Pycnoporus, and new monotypic genera

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HAPALOPILUS Karst. Rev. Myc. 3: 18. 1881

This genus was established upon a single species, *H. nidulans* (Fr.), the chief distinguishing characters being an anoderm surface and fleshy-tough context. In his work on Finland basidiomycetes published in 1889 Karsten reduces *Hapalopilus* to a subdivision of the genus *Inonotus*, throwing white-spored and brown-spored forms together. The forms treated under this genus in the present paper are all white-spored, with anoderm, variously marked surface and corky substance. The prevailing color is some shade of brown, the context usually being ferruginous. All the species are dimidiate, sessile and imbricate and grow upon decaying wood. *H. sublilacinus* differs from the other species in growing upon coniferous instead of deciduous wood.

In distribution the species differ widely. *H. rutilans* occurs rather abundantly in the temperate regions of North America and Europe, *H. gilvus* is exceedingly common throughout North America in both temperate and tropical regions and *H. licnoides* is a common tropical American species. The other three are as yet known only from their type localities, which are southern. A very evident line of division exists between *H. rutilans* and the other species, which latter bear distinct evidence of recent common origin. When the great variability of *H. gilvus* is taken into consideration, it appears to be only a question of a comparatively short time before several new species will be evolved.

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Synopsis of the North American species

1. Hymenium concolorous, pileus smooth, entirely devoid of zones or furrows, context soft and friable, spores 2.5 × 3.5 μ. 1. *H. rutilans.*
Hymenium differently colored, pileus rarely smooth, context rigid or corky, not friable. 2.

2. Hymenium lilac-colored, tubes 1 cm. or more in length, pileus concentrically sulcate. 2. *H. sublilacinus.*
Hymenium dark brown, tubes less than 0.5 cm. in length, pileus smooth or zonate. 3.

3. Context rigid, pileus azonate or with few and indefinite markings. 4.
Context flexible, pileus plainly and definitely multizonate. 3. *H. licnoides.*

4. Context bright ferruginous, hymenium fulvous to fuliginous, spores elongated, 6 × 2 μ. 4. *H. gilvus.*
Context pallid, hymenium subfulvous, spores subglobose to ovoid, 3–4 μ in diameter. 5. *H. fulvitinctus.*
Context brown, hymenium brownish-gray, pileus reddish-brown, finely hispid behind, spores ovoid, 3 × 3.5 μ. 6. *H. hispidulus.*

1. **Hapalopilus rutilans** (Pers.)

Boletus suberosus Bull. Herb. France, **11**: 354. *pl. 482.* 1791.
Not *B. suberosus* L. Sp. Pl. 1176. 1753.
Boletus rutilans Pers. Icon. et Descrip. 18. *pl. f. 4.* 1798–1900.
Polyporus nidulans Fr. Syst. Myc. **1**: 362. 1821.
Polyporus rutilans Fr. Syst. Myc. **1**: 363. 1821.
Hapalopilus nidulans Karst. Rev. Myc. **3**: 18. 1881.
Inonotus nidulans Karst. Finlands Basidsv. 332. 1889.

This species seems to have been described independently under different names by both Bulliard and Persoon, though the name assigned by the former had been previously used by Linnaeus. When Fries studied the plant he gave it the name *P. nidulans*, following it with Persoon's *P. rutilans*, which, he naïvely remarked, was perhaps a variety of *P. nidulans.* The two species were kept distinct by Berkeley, but he had little and poor material and evidently did not know them very intimately.

The plant appears to grow on most deciduous wood, being found on birch, dogwood, hazelnut, hickory, oak and other deciduous trees, with a preference in this country, perhaps, for hickory. Collections are at hand from Paris, *Patouillard;* Connecticut, *Underwood*, *Earle*, *White;* Pennsylvania, *Rau*, *Stevenson;* New York, *Underwood;* Kansas, *Cragin;* Iowa, *Macbride;* Greenland, *Rostrup;* Austria, *Bresadola.*

2. **Hapalopilus sublilacinus** (Ell. & Ev.)

Mucronoporus sublilacinus Ell. & Ev. Bull. Torrey Club, **27**: 50. 1900.

This species was collected by Langlois on pine logs in Louisiana and very doubtfully and provisionally assigned to *H. gilvus.* In some ways it does resemble that species, but it is larger, with concentrically furrowed surface and long, lilac-colored tubes. The spores are hyaline, but very distinct from those of *H. gilvus.*

3. **Hapalopilus licnoides** (Mont.)

Polyporus licnoides Mont. Pl. Cell. Cuba, 401. *pl. 16. f. 2.* 1842.

Polystictus licnoides Fr. Nov. Symb. 92. 1851.

Polystictus subglaber Ell. & Macbr. Iowa Univ. Bull. Nat. Hist. **3**: 193. 1896.

This well-known fungus is exceedingly common in tropical parts of America, occurring on dead wood of various kinds and presenting a variety of forms according to locality and habitat. The best early description of it is that made by Montagne. Fries may have described the species under *P. crocatus,* but this is not yet well determined. According to Romell, *Polyporus xerophyllaceus* Berk. (Hook. Jour. Bot. **8**: 200. 1856), described from Brazilian collections, is a synonym of the present species. Specimens from Guadaloupe in the Paris herbarium are named *Fomes Khortalsii* Lév., which latter is a Sumatran species. Young plants collected in Nicaragua by C. L. Smith have recently received the name *Polystictus subglaber,* said to differ from *P. licnoides* in having smaller pores and no spines. Resupinate forms from the southern states are usually known as *P. crocatus,* possibly because this species was once so identified from South Carolina.

In many ways *H. licnoides* and *H. gilvus* are strikingly alike and approach very near to each other in some varieties, but they are usually readily distinguished by the numerous concentric zones which ornament the surface of the former species. Spores and cystidia correspond closely. *H. gilvus* extends much farther north, however, and is abundantly collected where *H. licnoides* is never found. Among the numerous collections of this species examined are the following: Jamaica, *Underwood, Earle;* Cuba, *Underwood & Earle;* Mexico, *Smith;* Nicaragua, *Smith;* Louisiana, *Langlois;* Florida, *Martin, Calkins, Lloyd.*

4. **Hapalopilus gilvus** (Schw.)

Boletus gilvus Schw. Syn. Fung. Car. 70. 1818.
Polyporus gilvus Fr. Elench. Fung. 104. 1828.
Polyporus calvescens Berk. Ann. Nat. Hist. **3**: 390. 1839,
Polyporus omalopilus Mont. Pl. Cell. Cuba, 423. 1842.
Polyporus carneofulvus Berk. in Fries, Nov. Symb. 68. 1851.
Polystictus purpureofuscus Cooke, Grevillea, **15**: 24. 1886.

Owing to the abundance and wide distribution of this species in America it has figured in many collections and received several different names. This renaming has been due partly to the ignorance of foreign botanists and partly to the importance which varieties assume when studied apart from abundant representative material. The type specimens grew on maple and sweet gum in the Carolinas, where the plant is still found in great abundance. Old specimens from New Orleans were so changed in appearance that Berkeley described them as *P. calvescens.* The thinner tropical form collected in Cuba was called *P. omalopilus* by Montagne, while the stratified form occasionally assumed under tropical conditions is known as *Polyporus carneofulvus* Berk., or *Polyporus holosclerus* Berk. Still another variation, sulcate, thicker and tinged with purple, was collected on hickory in South Carolina (*Ravenel 3034*) and described by Cooke as *P. purpureofuscus.*

In addition to the above specific names, other names with which we have nothing to do have been assigned to our plant, thus increasing the confusion; as, for example, *P. scruposus* Fr., *P. isioides* Berk. and *P. pruinatus* Berk. & Kl., all applied originally to Indian or African species.

The present species is too well known to American mycologists to require further description. It is found on decayed wood of deciduous trees throughout; and except in the Gulf states and south where *H. licnoides* occurs it need not be confused with other species. Collections are at hand from Canada, *Dearness;* Pennsylvania, *Barbour, Sumstine;* Delaware, *Commons;* New York, *Earle, Burnham, George, Underwood, Murrill;* New Jersey, *Ellis, Murrill;* Missouri, *Demetrio;* Ohio, *Selby, Morgan;* Kansas, *Cragin;* Wisconsin, *Baker;* Nebraska, *Clements, Williams;* Virginia, *Murrill;* Georgia, *Harper, Ricker;* Alabama, *Earle, Baker;* Florida, *Calkins;* Louisiana, *Langlois;* Mexico, *Smith;* Cuba, *Earle, Underwood;* Jamaica, *Earle, Underwood;* Porto Rico, *Earle;* Trinidad, *Lloyd.*

5. **Hapalopilus fulvitinctus** (B. & C.)

Polyporus fulvitinctus B. & C. Jour. Linn. Soc. Bot. **10**: 313. 1868.

This species was collected on dead wood in Cuba by Wright. It differs from *H. gilvus* chiefly in having smaller and more rounded spores and paler substance; while in surface characters and consistency the two species are much alike. I know of no collections of the plant except those at Kew, and our knowledge of its habits and distribution is most meagre.

6. **Hapalopilus hispidulus** (B. & C.)

Polyporus hispidulus B. & C. Jour. Linn. Soc. Bot. **10**: 319. 1868.

Collected on decayed wood in Cuba by Wright. Known only from the rather scanty type collections at Kew. Pileus reddish-brown, finely hispid except near the margin, context brown, hymenium brownish-gray, spores ovoid, smooth, hyaline, 3 × 3.5 μ, immature, hyphae very pale ferruginous.

SPECIES INQUIRENDAE

Polyporus crocatus Fr. Epicr. 477. 1836–1838. Described from Leibman's Mexican collections. Transferred to *Polystictus* in Novae Symbolae, 91.1851. Probably a form of *P. licnoides* Mont. I hesitate to reduce *P. licnoides* to synonymy, however, without further investigation.

Polyporus sordidus Berk. in Fries, Nov. Symb. 80. 1851. Name changed to *Polyporus sordidulus* in Cooke's enumeration of polypores owing to the discovery of another species bearing the former name.

Polyporus endozonus Fr. Nov. Symb. 54. 1851. Collected by Oersted on trunks in the Island of San Juan. I have not seen the type of this species. It is said to be very thick and narrow, with smooth, rigid pileus, roughly fibrous context and very small short pores, which become dark umber with age. Fries treats it next to *P. scruposus* and it is certainly not far from *H. gilvus*, but the pileus is too thick and the substance too fibrous for this species.

PYCNOPORUS Karst. Rev. Myc. 3: 18. 1881

This genus was founded upon a single species, *Pycnoporus cinnabarinus* (Jacq.), and characterized by its author as follows: "Pileus suberosus, intus floccosus. Pori sat firmi." In North America there are two species of the genus, both of them very attractive, abundant and well known. One occurs chiefly in temperate regions and the other is extremely common in the tropics. In the southern United States the two approach quite near each other in some of their forms so that it is not easy to distiuguish them.

Synopsis of the North American species

Pileus thick smooth, opaque; plant abundant in temperate regions.
1. *P. cinnabarinus.*
Pileus thin, often zonate, brilliant red; plant abundant in the tropics.
2. *P. sanguineus.*

1. PYCNOPORUS CINNABARINUS (Jacq.) Karst. Rev. Myc. 3: 18. 1881

Boletus cinnabarinus Jacq. Fl. Austr. 4: 2. *pl. 304.* 1776.
Boletus coccineus Bull. Herb. France, 364. *pl. 501. f. 1.* 1791.
Polyporus cinnabarinus Fr. Syst. Myc. 1: 371. 1821.
Trametes cinnabarina Fr. Nov. Symb. 98. 1851.

This species was known for some time in Europe before receiving the name assigned to it by Jacquin. The type specimens were sent from Carinthia by Wulfen, and Jacquin states that it is parasitic on trees in subalpine districts of Austria. It is now known to occur on various deciduous trees in Europe, Asia and North America. Bulliard's fine figures were made from plants growing on cultivated cherry. Fries assigned it to his new genus *Trametes* in 1851 and Saccardo has listed it under two genera in his Sylloge. Its nearest ally is *P. sanguineus*, a tropical species, from which it differs in being thicker, more opaque in color, anoderm, and in having larger tubes with thicker dissepiments. There is also no zonate form of *P. cinnabarinus.*

The sporophores appear in this latitude in the latter part of June and mature quickly. In the earlier stages they are very soft, spongy and elastic, light orange in color and clothed with numerous slender delicate hairs which give them a pruinose appearance. Later the hairs disappear, the color becomes darker and the margin thicker. Not infrequently the old sporophores revive and take on an additional stratum of tubes, the new growth extending outward and upward over the former margin so as to entirely conceal it from view.

Exsiccatae: Finland, *Karsten*; New York, *Clinton*, *Blake*, *Murrill*; New Jersey, *Anderson*; Pennsylvania, *Barbour*, *Sumstine*, *Stevenson*; South Carolina, *Ravenel*; West Virginia, *Nuttall*; Virginia, *Murrill*.

2. **Pycnoporus sanguineus** (L.)

Boletus sanguineus L. Sp. Pl. ed. 2. **2**: 1646. 1762.
Xylometron sanguineum Paul. Icon. Champ. *pl. f. 3, 4.* 1793.
Polyporus sanguineus Mey. Fl. Esseq. 304. 1818.
Polystictus sanguineus Fr. Nov. Symb. 75. 1851.

This highly attractive fungus has been known from ancient times on account of its great abundance and brilliant coloring. The type locality is given by Linnaeus as Surinam, South America, but herbaria are abundantly supplied with it from most tropical regions the world over. Paulet's figure is cited only because of his generic name; no drawing could be poorer than this one, which seems to be only a mechanical design for the corner of his plate, resembling the plant in color but in no other way.

As to habitat and host, this species exhibits little choice, occurring on standing or fallen dead trunks and structural timbers of almost any kind of deciduous or evergreen tree. According to Swartz, it was formerly eaten by the negroes in its young stages; but it is certainly too tough for any ordinary use in this way.

Of the large number of exsiccati examined, I need mention only a few: North Carolina, *Raasloff*; South Carolina, *Ravenel*, *Du Bois*; Georgia, *Frank*, *Harper*; Florida, *Lloyd*, *Small & Carter*; Cuba, *Underwood & Earle*, *Britton*, *Shafer*; Jamaica, *Earle*; Porto Rico, *Howe*; Hayti, *Nash*; San Domingo, *Wright*; Bahamas, *Minns*; Trinidad, *Lloyd*; Mexico, *Smith*; Nicaragua, *Smith*; Honduras, *Wilson*; Columbia, *Baker*; Uruguay, *Lorentz*; Paraguay, *Balansa*; Bolivia, *Rusby*; Peru, *Pearce*; Bonin Islands, *Wright*.

Abortiporus gen. nov.

Hymenophore annual, tough, humus-loving; stipe normally central, often obsolete; context yellowish-white, duplex, spongy above, woody below, tubes thin-walled, mouths polygonal; spores subglobose, smooth, hyaline.

The type of this genus is *Boletus distortus* Schw. (Syn. Fung. Car. 71. 1818), a very variable species found about old stumps in various localities in the Eastern United States. The name assigned to the genus refers to the usual aborted form of the fruit body, in which the tubes with their abundant contents appear prematurely before the development of the pileus is complete.

Abortiporus distortus (Schw.).

Boletus distortus Schw. Syn. Fung. Car. 71. 1818.
Polyporus abortivus Peck, Bot. Gaz. **6**: 274. 1881.

The ordinary form of the fruiting body of this species has the appearance of being badly aborted in its development, only a few of the pilei reaching their full size. In its arrested form the pileus is a mass of pores filled with spores. The species has been badly confused with *P. rufescens* of Europe, but a study of that species in the field easily shows a very marked difference. A small specimen of our plant is to be found in the Paris herbarium under the name of *Polyporus pulvillus* Mont., but this name was never published for it so far as I know. The specimen is from South Carolina.

This species occurs about stumps, roots and other dead wood of deciduous trees, such as the oak, maple, *Ailanthus*, etc. Its distribution is quite general throughout the eastern part of North America and it has been found as far west as Wisconsin and Texas.

Exsiccatae: Canada, *Dearness;* Connecticut, *Earle;* Delaware, *Commons;* New Jersey, *Ellis;* Pennsylvania, *Rau, Gentry, Herbst;* Ohio, *Lloyd, Morgan, Dawson;* Missouri, *Demetrio;* Wisconsin, *Miss Patterson;* Alabama, *Earle & Baker;* Louisiana, *Langlois;* Texas, *Gentry.*

Cyclomycetella gen. nov.

Hymenophore annual, tough, epixylous, sessile, anoderm, zonate; context thin, fibrous, brown, tubes short, thin-walled, mouths polygonal, becoming concentrically elongated in some species by the splitting of the radial walls; spores ellipsoidal, smooth, ferruginous.

This genus is based upon *Boletus pavonius* Hook. (Kunth, Syn. Pl. **1**: 10. 1822), described from Colombia. Its nearest ally is the old-world genus *Cyclomyces*, erected by Fries in 1830 upon *Cyclomyces fuscus*. In this latter genus the tubes are continuous concentric furrows, while in the species of *Cyclomycetella* which come nearest to *Cyclomyces* the concentric appearance of the hymenium is caused by the partial splitting of the radial walls in age; and the formation of furrows is by no means constant.

Cyclomycetella pavonia (Hook.).

Boletus pavonius Hook. in Kunth, Syn. Pl. **1**: 10. 1822.
Polyporus pavonius Fr. Epicr. 477. 1836–1838.
Polyporus iodinus Mont. Ann. Sci. Nat. II. Bot. **16**: 108. 1841.

The type plants of Hooker's species were collected by Humboldt in Colombia, or New Granada as it was then called, and named for *Ulva pavonia* because of the concentric lines of the pileus. Montagne's types were from Guiana, collected by Leprieur. He first thought that these plants were *P. striatus* (Hook.), but later placed them midway between this species and *P. tabacinus* Mont., making no mention of Hooker's other species, *P. pavonius*, described just before.

Other closely related species are found in South America. *B. striatus* Hook. (Kunth, Syn. Pl. **1**: II. 1822), was described from plants collected by Humboldt in Peru, and has since been found in Venezuela. *P. vespilloneus* Berk. (Hook. Jour. 8: 1856) was described from Juan Fernandez Island and later reported by Montagne from Chile. All these species show very recent common origin. *P. Hasskarlii*, a Ceylon species, has several times been erroneously reported from Cuba.

Cycloporus gen. nov.

Hymenophore annual, tough, anoderm, terrestrial, orbicular, centrally stipitate; context soft, spongy, ferruginous; pores at first polygonal, soon becoming continuous concentric furrows, dissepiments thin, lamelloid; spores ovoid, smooth, ferruginous.

The type of this genus is *Cyclomyces Greenei* Berk. (Lond. Journ. Bot. 4: 306. *pl. 11.* 1845), a very rare plant found in temperate regions of North America. The genus *Cycloporus* differs widely from *Cyclomyces* in being terrestrial and stipitate instead of epixylous and sessile.

Cycloporus Greenei (Berk.)

Cyclomyces Greenei Berk. Lond. Jour. Bot. **4**: *pl. 11.* 1845.

This remarkable plant has been eagerly sought for by collectors since its discovery in New England by Greene and still the number of specimens found is hardly a dozen. It may at once be distinguished from all other pore-fungi by its concentric, gill-like tubes and central stem. It grows on the ground in woods. Specimens have been examined from Massachusetts, *Greene, Sprague;* New York, *Peck;* Connecticut, *Earle;* New Jersey, *Gentry;* Iowa, *McBride;* West Virginia, *Nuttall;* Vermont, *Farlow.* Five of these collections are in the herbarium of the New York Botanical Garden.

Globifomes gen. nov.

Hymenophore large, woody, encrusted, perennial, epixylous, compound; context ferruginous, punky, tubes cylindrical, thick-walled, stratose: spores ovoid, smooth, ferruginous.

The type of this genus is *Boletus graveolens* Schw. (Syn. Fung. Car. 71. 1818), a rather rare plant first found in Georgia and the Carolinas, but later discovered as far west as Iowa. The genus is readily distinguished among its allies by its compound pileus, which consists of numerous small, closely imbricated pileoli united into a compact rounded mass.

The genus *Xylopilus* of Karsten (Hattsv. **2**: 69. 1882), is also described as having a compound pileus, but *Xylopilus crassus* (Fr.) Karst., its type species, is very probably only an abnormal form of a European species of *Elfvingia;* and even if this type plant were found to be normal the genus *Globifomes* would remain sufficiently distinct.

Globifomes graveolens (Schw.)

Boletus graveolens Schw. Syn. Fung. Car. 71. 1818.
Polyporus conglobatus Berk. Lond. Journ. Bot. **4**: 303. 1845.
Fomes graveolens Cooke, Grevillea, **13**: 118. 1884.

This species was first sent to Schweinitz from Georgia, but was later found in North Carolina. Plants sent from Ohio to Berkeley were thought to differ sufficiently from those growing on oak to justify a new name. The heavy odor of the fruiting plant is thought to be responsible for the common name of "Sweet Knot," by which it is known in some sections.

The most common host of this species is the oak, especially *Quercus nigra;* but it also occurs on beech. The fruit bodies are found on old dead trunks.

Exsiccatae: Rav. Fung. Car. 3: 8; Ell. N. A. Fung. 603; Ohio, *James, Cheney;* Iowa, *Macbride;* Pennsylvania, *Sumstine.*

Nigrofomes gen. nov.

Hymenophore large, perennial, epixylous, sessile; context woody, purple, tubes cylindrical, stratose, thick-walled, black; spores ovoid, smooth, hyaline.

The type of this genus is *Polyporus melanoporus* Mont. (Pl. Cell. Cuba, 422. 1842), found on trunks of trees in tropical America. The genus is readily distinguished from its near allies by its purple context and black tubes.

Nigrofomes melanoporus (Mont.)

Polyporus melanoporus Mont. Pl. Cell. Cuba, 422. 1842.

This species is the darkest-colored of the perennial polypores. It was first described from collections made in Cuba by Ramon de la Sagra. Underwood has also collected it several times in Jamaica and Florida and Smith has found it in Nicaragua. It is probably more or less common throughout tropical America on decaying trunks of various broad-leaved trees.

Poronidulus gen. nov.

Hymenophore annual, tough, sessile, epixylous, at first sterile and cup-like, the fertile portion developing from the sterile; context white, fibrous, tubes short, thin-walled, mouths polygonal; spores ellipsoidal, smooth, hyaline.

The type of this genus is *Boletus conchifer* Schw. (Syn. Fung. Car. 72. 1818), a very common and abundant species on dead elm branches. The development of the fruit-body is peculiar, being in two stages, the first ending with the formation of a cup-shaped sterile body, from which the fruit-body proper later develops. This preliminary pileus begins as a knot of whitish mycelium, which soon ceases to grow at the center, while the hyaline borders continue to grow upward and form a cup resembling species of *Nidularia*. The margin of the cup is thin and entire or undulate and becomes darker like the center when the limit of growth is reached, while the concentric zones within very plainly show the progress of the development. The cup varies from deeply infundibuliform to shallow or even flat at times and the central portion which has ceased to grow is much cracked radially to accommodate itself to the growing exterior.

The pileus proper usually arises from one side of the cup near its base and expands laterally into a reniform, zonate hymenophore considerably larger than the sterile portion. At times the pileus does not develop beyond the surface of the cup and at other times a developed pileus becomes proliferous at several points and give rise to new sterile and fertile portions. Since the formation of the cups continues throughout the growing season, many are overtaken by winter and are found among the new ones the following spring. The old pilei rarely remain over winter, being fragile and readily devoured by insect larvae.

Poronidulus conchifer (Schw.)

Boletus conchifer Schw. Syn. Fung. Car. 72. 1818.
Boletus virgineus Schw. Syn. Fung. Car. 72. 1818.

This species was first described from North Carolina, but it is known to be common in many parts of North America on fallen branches and dead limbs of the elm, its only host. Under the first name Schweinitz described forms that showed the cups attached to the developing pilei; under the second he placed fully developed fruit bodies showing little trace of the sterile part from which they sprang. The plant is confined to North America. Among collections examined are the following: Massachusetts, *King;* Connecticut, *White;* New Hampshire, *Minns;* New York, *Earle, Murrill;* New Jersey, *Earle, Murrill;* Ohio, *Lloyd;* Virginia, *Murrill;* Alabama, *Earle;* Kansas, *Bartholomew.*

A brief synopsis of the genera treated in articles I-VIII of this series

- Surface of hymenophore covered with reddish-brown varnish, context corky. *Ganoderma.*
- Surface of hymenophore not as above, or, if so, context woody.
  - Hymenophore annual.
    - Tubes hexagonal and radially elongated. *Hexagona.*
    - Tubes not as above.
      - Hymenophore stipitate.
        - Stipe compound. *Grifola.*
        - Stipe simple.
          - Context white.
            - Plants fleshy, terrestrial. *Scutiger.*
            - Plants tough, epixylous.
              - Pileus inverted, erumpent from lenticels. *Porodiscus.*
              - Pileus erect, not erumpent.
                - Context homogeneous, firm. *Polyporus*
                - Context duplex, spongy above, woody below. *Abortiporus.*
          - Context brown.
            - Hymenium concentrically lamelloid. *Cycloporus.*
            - Hymenium poroid.
              - Spores white. *Romellia.*
              - Spores brown.
                - Pileus erect, stipe central. *Coltricia.*
                - Pileus inverted, pendent. *Coltriciella.*
      - Hymenophore sessile.
        - Context white.
          - Tubes at length separating from the context, surface smooth. *Piptoporus.*
          - Tubes not separating from the context, surface zonate. *Poronidulus.*
        - Context red. *Pycnoporus.*
        - Context brown.
          - Spores white. *Hapalopilus.*
          - Spores brown. *Cyclomycetella.*
  - Hymenophore perennial.
    - Context and tubes white or pallid.
      - Hymenium at first concealed by a volva. *Cryptoporus.*
      - Hymenium free from the first. *Fomes.*
    - Context and tubes brown or dark red.
      - Hymenophore subsessile, caespitose, the numerous pileoli arising from a common trunk or tubercle. *Globifomes.*
      - Hymenophore truly sessile, either simple or imbricate.
        - Pileus covered with a horny crust, context punky. *Elfvingia.*
        - Pileus not covered with a horny crust or, if encrusted, context hard and woody. *Pyropolyporus.*
    - Context and tubes dark purple or black. *Nigrofomes.*

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Nigrofomes	31: 425.	1904
Piptoporus	30: 424.	1903
Polyporus	31: 29.	1904
Porodiscus	30: 432.	1903
Poronidulus	31: 425.	1904
Pycnoporus	31: 420.	1904
Pyropolyporus	30: 109.	1903
Romellia	31: 338.	1904
Scutiger	30: 425.	1903